

LISTING OF THE CLAIMS

This listing of the claims will replace all prior versions, and listings, of the claims present in the application:

sub B1
1. (Presently Amended) A semiconductor laser device, comprising:
a semiconductor laser chip having an emission facet for emitting a laser beam;
and
a sub-mount having a first surface on which the semiconductor laser chip is provided, and at least one second surface vertical to the first surface,
wherein one of the second surface, which is arranged in line with the emission facet of the semiconductor chip, is inclined at an angle of 3 to 30 degrees to the emission facet, and
the second surface which is inclined reflects an incident light orthogonal to the emission surface of the semiconductor laser chip to a different direction in accordance with the angle of the second surface ~~reflection light of a sub beam diffracted from the laser beam emitted from the semiconductor laser chip.~~

2. (Original) The device according to claim 1, wherein the angle of the second surface which is inclined is set to 3 to 15 degrees to the emission facet.

3. (Presently Amended) The device according to claim 1, wherein a ~~plane~~ shape of the first surface of the sub-mount is a rectangle or square.

4. (Presently Amended) The device according to claim 3, wherein a plane shape of the first surface of the sub mount is a parallelogram.

b1
5. (Original) The device according to claim 1, wherein the semiconductor laser chip is a rectangle or square.

a4
6. (Original) The device according to claim 5, wherein the semiconductor chip has a thickness of 60 to 150 μm .

7. (Original) The device according to claim 5, wherein material of the sub-mount is one of AlN, SiC, and Si.

8. (Original) The device according to claim 2, wherein a plane shape of the semiconductor laser chip is a rectangle or square, a plane shape of the sub-mount is a rectangle or square, the semiconductor laser chip is provided and rotated at the angle with respect to the sub-mount, the sub-mount is provided on a heatsink, and edges of the semiconductor laser chip are respectively parallel to edges of the heatsink.

9. (Presently Amended) A semiconductor laser device comprising:
a semiconductor laser chip having an emission facet for emitting two laser beams; and

a sub-mount having a first surface on which the semiconductor laser chip is provided, and at least one second surface vertical to the first surface,

b1 wherein one of the second surface, which is arranged in line with the emission facet of the semiconductor chip, is inclined at an angle of 3 to 30 degrees to the emission facet, and

a4 the second surface which is inclined reflects an incident light orthogonal to the emission surface of the semiconductor laser chip to a different direction in accordance with the angle of the second surface ~~reflection light of a sub beam diffracted from the laser beams emitted from the semiconductor laser chip.~~

10. (Original) The device according to claim 9, wherein the semiconductor laser chip emits a first laser beam having a first wavelength and a second laser beam having a second wavelength.

11. (Original) The device according to claim 10, wherein the first wavelength band is 780 nm, and the second wavelength band is 650 nm.

12. (Original) The device according to claim 9, wherein the semiconductor laser chip has first and second electrodes, and the sub-mount has third and fourth electrodes connected with the first and second electrodes.

13. (Original) The device according to claim 12, the sub-mount has a slit between the third and fourth electrodes.

B1 14. (Original) The device according to claim 9, wherein the angle of the second surface which is inclined is set to 3 to 15 degrees to the emission facet.

A4 15. (Original) The device according to claim 9, wherein a plane shape of the sub-mount is a rectangle or square.

16. (Original) The device according to claim 15, wherein a plane shape of the sub-mount is a parallelogram.

17. (Original) The device according to claim 9, wherein the semiconductor laser chip is a rectangle or square.

18. (Original) The device according to claim 17, wherein the semiconductor chip has a thickness of 60 to 150 μm .

19. (Original) The device according to claim 16, wherein material of the sub-mount is one of AlN, SiC, and Si.

61 20. (Original) The device according to claim 2, wherein a plane shape of the semiconductor laser chip is a rectangle or square, a plane shape of the sub-mount is a rectangle or square, the semiconductor laser chip is provided and rotated at an angle of 3 to 30 degrees with respect to the sub-mount, the sub-mount is provided on a heatsink, and edges of the semiconductor laser chip are respectively parallel to edges of the heatsink.

21. (Presently Amended) An optical pickup apparatus comprising:
a semiconductor laser device ~~for emitting~~ which emits a laser beam;
a diffraction grating ~~for diffracting~~ which diffracts the laser beam from the semiconductor laser device and ~~for outputting~~ which outputs the laser beam and a sub-beam;
a collimator lens ~~for making~~ which makes the laser beam and the sub-beam from the diffraction grating be parallel to each other;
a half-mirror which allows the laser beam and the sub-beam from the collimator lens to pass;
an objective lens ~~for guiding~~ which guides the laser beam and the sub-beam from the half-mirror to an optical disk; and
a light receive element ~~for receiving~~ which receives reflection light from the optical disk through the objective lens and the half-mirror and, ~~for converting~~ which converts the reflection light received into an electrical signal, wherein

b1 the semiconductor laser device comprises a semiconductor laser chip having an emission facet for emitting a laser beam, and a sub-mount having a first surface on which the semiconductor laser chip is provided, and at least one second surface vertical to the first surface,

one of the second surface, which is arranged in line with the emission facet of the semiconductor chip, is inclined at an angle of 3 to 30 degrees to the emission facet, and

A4 the second surface which is inclined reflects reflection light of a sub-beam diffracted from the laser beam emitted from the semiconductor laser chip to a different direction in accordance with the angle of the second surface.

22. (Original) The apparatus according to claim 21, wherein the semiconductor laser chip emits a first laser beam having a first wavelength and a second laser beam having a second wavelength.

23. (Original) The apparatus according to claim 22, wherein the first wavelength band is 780 nm, and the second wavelength band is 650 nm.

24. (Original) The apparatus according to claim 21, wherein the semiconductor laser chip has first and second electrodes, and the sub-mount has third and fourth electrodes connected with the first and second electrodes.

25. (Original) The apparatus according to claim 24, the sub-mount has a slit between the third and fourth electrodes.

B1 26. (Original) The apparatus according to claim 21, wherein the angle of the second surface which is inclined is set to 3 to 15 degrees to the emission facet.

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End 27. (Original) The apparatus according to claim 21, wherein a plane shape of the sub-mount is a rectangle or square.

28. (Original) The apparatus according to claim 27, wherein a plane shape of the sub-mount is a parallelogram.

29-31. (Withdrawn)